Claims

- 1. A growth blocking agent directed to a vitamin B_{12} binding site on TcII, said agent being capable of competitively antagonizing or modulating said binding site to inhibit the cellular uptake of vitamin B_{12} .
- 2. The agent of claim 1 wherein said agent is selected from the group consisting of proteins, peptides and small organic molecules.
 - 3. The agent of claim 2 wherein said agent is a protein.
 - 4. The agent of claim 3 wherein said agent is an antibody.
- 5. A growth blocking agent directed to a binding site on a TcII/B₁₂ complex, said agent being capable of competitively antagenizing or modulating said binding site to inhibit cellular uptake of vitamin B₁₂.
- 6. The agent of claim 5 wherein said agent binds to an apo- $TcII/B_{12}$ complex.
- 7. The agent of claim 6 wherein said agent binds to a holo- $TcII/B_{12}$ complex.
- 8. The agent of any one of claims 5, 6 or 7 wherein said agent is selected from a group consisting of proteins, peptides and small organic molecules.
 - 9. The agent of claim 8 wherein said agent is a protein.
 - 10. The agent of claim 9 wherein said agent is an antibody.
- 11. A growth blocking agent directed to a clearing site, said agent being capable of causing the removal of TcII to a reticulo-endothelial organ.
- 12. The agent of claim 11 wherein said agent is selected from a group consisting of proteins, peptides and small organic molecules.
 - The agent of claim 12 wherein the agent is a protein.

- 14. The agent of claim 13 wherein the agent is an antibody.
- 15. A monoclonal antibody growth blocking agent selected from the group consisting of 2-2, 3-11, 4-7, 1-18, 5-19 and 7-14.
- 16. A method of inhibiting cell division in a warm-blooded animal, comprising administering to a warm-blooded animal a therapeutically effective amount of a growth blocking agent according to any one of claims 1-15.
- 17. A method of inhibiting cellular uptake of vitamin B_{12} in a warm-blooded animal, comprising administering a warm-blooded animal an effective amount of a growth blocking agent according to any one of claims 1-15 such that vitamin B_{12} cellular uptake is inhibited.
- 18. A method of inhibiting cellular uptake of vitamin B_{12} in a biological preparation, comprising administering to the biological preparation an effective amount of a growth blocking agent according to any one of claims 1-15 such that vitamin B_{12} cellular uptake is inhibited.
- 19. A pharmaceutical composition comprising a growth blocking agent according to any one of claims 1-15 and a pharmaceutically acceptable carrier or diluent.
- 20. A method of treating a neoplastic disorder in a warm-blooded animal, comprising administering to a warm-blooded animal an effective amount of a growth blocking agent according to any one of claims 1-15.

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